

February 9, 2012

Mr. Henry Willems
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway, 12th Floor
Albany, New York 12233-7013

**Subject: Remedial Investigation Work Plan Addendum (No. 4)
Offsite Property 381/539 Smith Street – Step-Out Location
Metropolitan former Manufactured Gas Plant (MGP) Site, Brooklyn, NY**

Dear Mr. Willems:

National Grid is submitting the following Remedial Investigation Work Plan Addendum (No. 4) for the Metropolitan former manufactured gas plant (MGP) site (the Site), located at 124 - 136 2nd Avenue in Brooklyn, New York. This addendum describes work to be performed on the western sidewalk of Smith Street between Lorraine Street and Creamer Street. This location is south-west from the 381/539 Smith Street "Greco Brothers Concrete" property (Block 483, Lots 1 and 11) located off-site to the northwest of the former MGP (Figure 1).

The former Metropolitan MGP was operated by The Brooklyn Union Gas Company (BUG), a predecessor company to National Grid, from the late 1880s until approximately 1938. The Remedial Investigation of the Site is being conducted by National Grid pursuant to a Multi-site Order on Consent and Administrative Settlement with the NYSDEC, Index # A2-0552-0606, executed on February 22, 2007 and modified on August 10, 2007, and in accordance with applicable guidelines of the New York State Department of Environmental Conservation (NYSDEC), the New York State Department of Health (NYSDOH), the United States Environmental Protection Agency (USEPA), and the National Contingency Plan (NCP). Specifics of the RI scope of work are presented in the NYSDEC-approved work plan (Remedial Investigation Work Plan, Metropolitan Former MGP Works, May 2009) produced by AECOM.

The scope of work presented in this letter supplements the May 2009 NYSDEC-approved Remedial Investigation Work Plan (the RIWP). The goal of the RIWP Addendum No. 4 is to determine soil conditions southwest of SB/MW-19 S/I at the Greco Brothers Concrete property (Figure 1). During RI addendum activities performed in 2011, MGP residuals were noted at the SB/MW-19 S/I location at depths ranging from approximately 13 to 38 feet below ground surface.

Background

The site setting, regional geology and hydrogeology, operational history of the Metropolitan MGP, historic structures, post MGP activities, previous MGP investigations and remedial actions are summarized in the RIWP.

On October 2, 2011, during the Metropolitan Remedial Investigation Addendum scope of work, soil boring SB/MW-19 S/I was installed northwest of the Site boundary and adjacent to the Gowanus Canal (Figure 1). The boring was advanced using sonic drilling methods with continuous soil sampling to a completion depth of 85 feet below ground surface (ft bgs). Groundwater was encountered at approximately 6 ft bgs at the SB/MW-19 S/I location in fill material consisting of sand, silt, gravel, and some brick debris. Tar blebs and coatings and naphthalene-like odors were observed/detected in the fill from 10 to 15 ft bgs and in and underlying native sand interval from 27.5 to 37.5 ft bgs. These impacts are believed to have originated from the former MGP.

RIWP Addendum Scope of Work

The proposed scope of work includes the advancement of one soil boring (SB-26) to further delineate the extent of visible tar/MGP residuals to the southwest of SB/MW-19 S/I (Figure 1 and Table 1). The addendum activities will be performed in accordance with the RIWP, and will include the following:

- Advancement of soil boring SB-26 to approximately 60-70 ft bgs.
- Collection of soil samples from the boring for laboratory analyses.
- Surveying the soil boring for location and elevation.
- Management of investigation derived waste (IDW).

As shown on Figure 1, the proposed boring has been placed on the western sidewalk of Smith Street where it is bounded by Lorraine Street to the north and Creamer Street to the south. Access to the area closer to the canal and SB-19 is limited due to the presence of the elevated Brooklyn Queens Expressway and private properties. The actual location of the proposed boring may be modified in the field to account for access restrictions, such as utilities, permanent structures (fences, buildings, walls), and Department of Transportation (DOT) restrictions in the permit.

The boring location will be cleared for utilities following National Grid pre-clearance protocols involving geophysical practices and low energy excavation techniques. Once cleared, the soil boring will be advanced by using either direct push drilling (GeoProbe[®]), hollow stem auger, or rotasonic drilling methods. Soil samples for observation and VOC screening by photo-ionization detector (PID) will be collected and logged continuously from the ground surface to boring completion. A minimum of two (2) soil samples will be collected from the boring for laboratory analysis. One sample will be collected from the zone of worst case impacts. If no impacts are encountered, this sample will be collected from a depth that corresponds horizontally to the impact interval sampled at SB-19 (37-37.5 ft bgs). The second sample will be collected from the first clean interval below any observed impacts or the base of the boring. The boring will be advanced up to 70 ft bgs, if possible, or at a minimum to a depth that corresponds to the deepest primary impact interval noted at SB-19 (approximately 38 feet bgs) taking into account changes in ground surface elevation.

Soil samples will be submitted to a NYSDOH Environmental Laboratory Approval Program (ELAP) Certified laboratory for the following analyses:

- Volatile organic compounds (VOCs) by EPA Method 8260
- Semi-volatile organic compounds (SVOCs) by EPA Method 8270
- RCRA 8 Metals

Quality assurance and quality control (QA/QC) samples will be collected and submitted for analyses in accordance with the RIWP.

Following completion, the boring will be grouted to the ground surface and the surface restored to match pre-existing conditions. The boring will also be surveyed for location and elevation by a licensed surveyor and will be combined with the on-site survey to create a comprehensive site plan.

If no impacts are noted at the proposed SB-26 boring location, remedial investigation activities will be considered complete and National Grid will enter the data compilation and reporting phase.

Mr. Hank Willems
February 9, 2012
Page 3

Yours sincerely,

A handwritten signature in dark ink, appearing to read "Donald Campbell". The signature is fluid and cursive, with the first name "Donald" and last name "Campbell" clearly distinguishable.

Donald Campbell

Cc: T. Bell (National Grid)
C. Doroski (NYSDOH)
P. Cox (AECOM)

Table 1
Proposed RI Addendum on Smith Street
Sample Location, Rationale, and Analytical Sample Summary
Metropolitan Former MGP, 124-136 Second Avenue, Brooklyn, New York

Location ID	Sample ID	Completion Depth	Sample Depth	No. of Samples	Analyses	Rationale
Surface Soil/Subsurface Soil						
SB-26	SB-26 (depth)	Est. 70 feet max	Zone of worst-case impacts or depth consistent with worst-case impacts at adjacent boring if no impacts noted and first clean or bottom.	2	VOCs, SVOCs, RCRA 8 metals	Evaluate horizontal extent of impacts noted at SB/MW-19 S/I location at 381/539 Smith Street and to provide data to better refine the general fate and transport /conceptual summary of impacts to the south and southwest of the former MGP.

Notes

1. No. - number
2. ID - identification
3. SB - Soil Boring (Subsurface Soil)
4. VOCs - volatile organic compounds
5. SVOCs - semi-volatile organic compounds
6. RCRA - Resource Conservation and Recovery Act

